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(54) Title: MODULATION OF LINE-1 REVERSE TRANSCRIPTASE

(57) Abstract: A reverse transcriptase encoded by L-1 (LINE-1) has been identified as a target molecule for treating or preventing cancers induced or mediated by this molecule. Method of treating or preventing such cancers in patients involves administration of a therapeutically effective amount of a composition having an inhibitor or antagonist of the reverse transcriptase in cells of the patients. The inhibitor or antagonist blocks lengthening of telomeres in telomerase negative cells. Methods and kits for detecting pathologically proliferating cells expressing L1RT are also disclosed.